REMARKS

In the Official Action mailed **May 2, 2002**, the Examiner reviewed claims 1-10 and 12-25. Claims 1-2, 5-10, 12-13, 16-17, and 20-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakanishi et al (EP 0 903 677 A2, hereinafter "Nakanishi") in view of Devarakonda et al. (EPO 0 655 495 A2, hereinafter "Devarakonda"). Claims 3, 14, and 18 were rejected as being unpatentable over Nakanishi in view of Devarakonda and further in view of Sudhakaran et al. (USPN 6,161,150, hereinafter "Sudhakaran"). Claims 4, 15, and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakanishi in view of Devarakonda and further in view of Ho (USPN 5,615,373, hereinafter "Ho").

Rejections under 35 U.S.C. §103(a)

Independent claims 1, 12, and 16 were rejected as being unpatentable over Nakanishi in view of Devarakonda.

Applicant respectfully points out that Devarakonda teaches **distributed locking managers** that lock an entire resource after a token has been granted by a central lock facility (see Devarakonda, FIG. 1, Abstract, and column 3, line 54 to column 4, line 10). In contrast, the instant application discloses **multiple independent locks** on lockable resources (see FIG. 2, and page 8, lines 8-19 of the instant application). Multiple independent locks are not the same as distributed locking managers. Having multiple independent locks is advantageous because it allows multiple controllers to lock independent portions of a lockable resource independently. For example, referring to FIG. 2 of the instant application, controller 206 can acquire lock 228 on managed resource 112 while controller 208 can independently acquire lock 229 on managed resource 112.

There is nothing within either Nakanishi or Devarakonda, either separately or in concert, which suggests that having multiple independent locks would allow

multiple controllers to lock independent sub-units of the lockable resource independently.

Accordingly, Applicant has amended independent claims 1, 12, and 16 to clarify that the one or more independent locks allow multiple controllers to lock independent sub-units of the lockable resource independently.

Hence, Applicant respectfully submits that independent claims 1, 12, and 16 as presently amended are in condition for allowance. Applicant also submits that claims 2-10, which depend upon claim 1, claims 13-15, which depend upon claim 12, and claims 17-25, which depend upon claim 16 are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

Version with markings to show changes made:

The Claims:

1. (Twice Amended) A method for providing concurrency control for a policy-based management system that controls resources in a distributed computing system, the method comprising:

receiving a request to perform an operation on a lockable resource from a controller in the distributed computing system, wherein the lockable resource presents one or more independent locks providing access to independent sub-units of the resource and wherein the one or more independent locks allow multiple controllers to lock independent sub-units of the lockable resource independently;

wherein the controller sends the request in order to enforce a first policy for controlling resources in the distributed computing system;

determining whether the controller holds a lock on the lockable resource;

allowing the controller to execute the operation on the lockable resource if the controller holds the lock on the lockable resource;

allowing the controller to acquire the lock if the controller does not hold the lock on the lockable resource; and

allowing the controller to execute the operation on the lockable resource if the controller acquires the lock.

12. (Twice Amended) A computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method for providing concurrency control for a policy-based management system that controls resources in a distributed computing system, the method comprising:

receiving a request to perform an operation on a lockable resource from a controller in the distributed computing system, wherein the lockable resource presents one or more independent locks providing access to independent sub-units

of the resource and wherein the one or more independent locks allow multiple controllers to lock independent sub-units of the lockable resource independently;

wherein the controller sends the request in order to enforce a first policy for controlling resources in the distributed computing system;

determining whether the controller holds a lock on the lockable resource;

allowing the controller to execute the operation on the lockable resource if the controller holds the lock on the lockable resource;

allowing the controller to acquire the lock if the controller does not hold the lock on the lockable resource; and

allowing the controller to execute the operation on the lockable resource if the controller acquires the lock.

16. (Twice Amended) An apparatus that provides concurrency control within a policy-based management system that controls resources in a distributed computing system, the apparatus comprising:

a receiving mechanism that receives a request to perform an operation on a lockable resource from a controller in the distributed computing system, wherein the lockable resource presents one or more independent locks providing access to independent sub-units of the resource and wherein the one or more independent locks allow multiple controllers to lock independent sub-units of the lockable resource independently;

wherein the controller sends the request in order to enforce a first policy for controlling resources in the distributed computing system;

a determining mechanism that determines whether the controller holds a lock on the lockable resource;

an execution mechanism that is configured to,

allow the controller to acquire the lock if the controller does not hold the lock on the lockable resource, and to

allow the controller to execute the operation on the lockable resource if the controller holds the lock on the lockable resource.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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